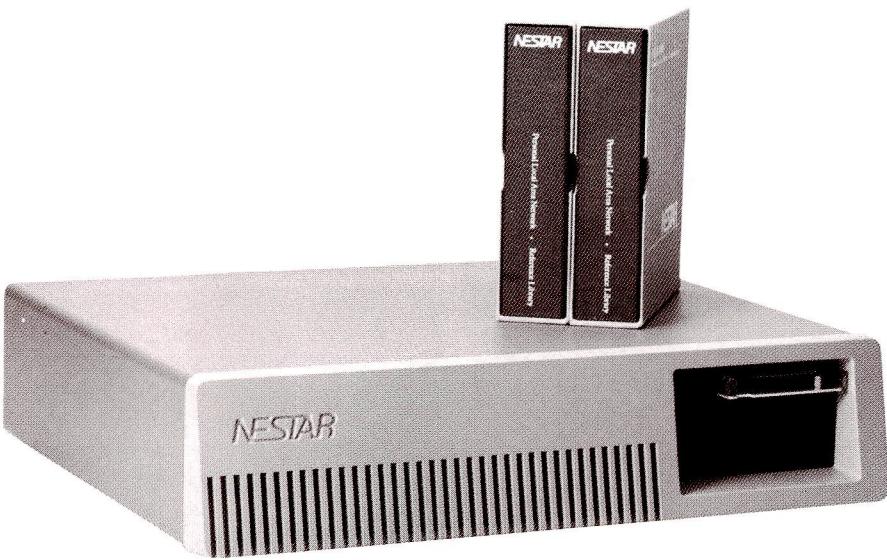# PLAN 3000™ FILE SERVER

The PLAN 3000™ File Server is a key component of Nestar's total systems approach to resource and information sharing. It combines networking technologies with field-proven server software to offer a distinctive networking product.

The basic function of the File Server is to manage access to shared storage and back-up facilities for the networked user stations. This management includes many essential features: password protection, efficient use of storage space, error-checking and recovery, reliable and integrated back-up, and controlled access to files. The File Server is built to accommodate growth and cost sensitivities.

NESTAR

PLAN Series™

Description

The File Server is an attractive, desk-top unit designed to be placed conveniently on a desk or table. The low noise level of the File Server allows it to be used in the working environment. The System management console can be placed near the File Server or at some remote location. The File Server interface to the network is built into the cabinet.

Storage and Backup Capabilities

Disks are available in 24, 40 and 56 megabyte capacities (formatted). To back-up the Nestar disks, the File Server has a built-in, high-speed tape unit with 45 or 60 megabyte streaming cartridge tape capacities.

User Station Configurations

Workstations on the PLAN 3000 may be any combination of Apple® II, Apple III or IBM® PC personal computers.

Users Share Data and Programs

Nestar's PLAN Server software manages the mass storage shared by all users on the network. "Virtual" volumes may be created or deleted by either the system manager or an authorized user. The size of a virtual volume is not restricted to the size of a real diskette; it can be customized to any size permitted by the user station operating system. Volumes are organized in a hierarchical structure utilizing a UNIX™ style pathnaming convention. Users can share a single copy of data or programs residing on the hard disk with a pathname and the proper access rights and passwords.

The File Server not only utilizes storage efficiently but at the same time, overcomes size, security and reliability problems associated with diskettes.

Utilities

The File Server software includes utilities for comprehensive file management. These include such functions as: listing the network directory hierarchy, displaying internal information about files, deleting entire directory hierarchies, dump restore of disk to/from tape and copying entire real or virtual diskettes.

File Security

In a network supporting up to 255 simultaneous users, comprehensive security options must be provided. Nestar's File Server incorporates password protection with access rights resulting in controlled access to shared programs and data. Different subsets of users may have read, write, exclusive or shared access to the same files. Locking at volume, file and record levels exist for applications requiring multiuser update facilities.

Operating System Support

The File Server supports a variety of user station operating systems. Currently, the IBM PC user may choose PC DOS or UCSD p-System™, the Apple II user may choose DOS, Apple Pascal System or CP/M®, and the Apple III user may run SOS. Users may change environments at will while working at a given workstation.

System Manager

The System Manager is responsible for authorizing new users and maintaining system security on the File Server. Other functions that may be controlled by the system manager are system diagnosis and recovery, back-up strategies and storage management.

SPECIFICATIONS SUMMARY

PERFORMANCE SPECIFICATIONS

Stations Supported: *Supports IBM PC, Apple II and Apple III personal computers*

Maximum Number of Stations: *Up to 255 workstations and servers per network*

Cable Length: *22,000 feet (over 4 miles) between stations*

Disk Capacity: *24.3, 40.4 and 56.6 megabytes (formatted)*

System Backup: *High speed tape back-up unit utilizing 45 or 60 megabyte streaming tape cartridges (90 ips)*

Network Interface: *Network interface with mass storage controller and real time clock with battery back-up*

Console Support: *Two RS232C communication ports for ASCII terminals (normally used for local and remote consoles)*

DIMENSIONS

	Height	Width	Length
File Server	5"	22.375"	17.125"

ELECTRICAL REQUIREMENTS

Voltage: 100-125 or 200-250 VAC
Frequency: 47-63 Hz
Current: 3 amps
Receptacle: NEMA 5-15R (USA)

OPERATING ENVIRONMENT

Temperature: 10/35°C
Relative Humidity: 20%-80%

Heat:
10 and 15 MB: 1177 BTU/hr.

	Regular	Shipping
Weight:	38.5 lbs	48.5 lbs

DISK PERFORMANCE

Access Time
Track-to-Track	5 msec
Average	30 msec
Maximum	60 msec
Average Latency	8.3 msec
Data Transfer Rate	5 Mbps
Start Time	25 sec
Stop Time	25 sec

DISK CAPACITY

Track Format 32 x 256 byte sectors
Cylinders per Disk 987
Model 30
30.8 MBytes	(unformatted)
24.3 MBytes	(formatted)

Model 50
51.4 MBytes	(unformatted)
40.4 MBytes	(formatted)

Model 70
72.0 MBytes	(unformatted)
56.6 MBytes	(formatted)

TAPE DRIVE PERFORMANCE

Transfer Rate: 90K bytes/sec.
(1 MB per 11.1 sec)
Speed Read/Write/Rewind: 90 ips
Tracks: 9 (45 and 60 MB)
Recording Density: 8000 bits/inch
(1000 bytes/inch)

Due to our continuing program of product development, specifications are subject to change without notice.